



# **Section C:2**

## ***River Corridor***

### **PROJECT MANAGERS**

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## SUMMARY

The River Corridor Project (RCP) consists of the following projects: 300 Area Liquid Effluent Facility (LEF) WBS 1.2.3.2, Project Baseline Summary (PBS) WM05; 300 Area/Special Nuclear Materials, WBS 1.4.4, PBS TP04; Transition Project Management, WBS 1.4.6, PBS TP12; Accelerated Deactivation, WBS 1.4.8, PBS TP10; 324/327 Facility Transition, WBS 1.4.10, PBS TP08; and Hanford Surplus Facility Program (300 Area Revitalization), WBS 1.4.11, PBS TP14.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). The 310 TEDF/340 Facility work scope is now included in the River Corridor Project, whereas the Liquid Effluents (200 LEF) work scope has remained in Waste Management Project. For the purpose of performance analysis, PBS WM05 is reported in its entirety in the Waste Management Project, which has the majority of the work scope and funding incorporated in its baseline.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of July 31, 2001. All other information is as of August 22, 2001.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that three milestones (75 percent) were completed on or ahead of schedule and one milestone was completed late.

## NOTABLE ACCOMPLISHMENTS

**The 324 Building Deactivation Project** — The size reduction of the D Cell skids is complete and the first grout container of waste shipped to the 200 Area burial grounds. Additionally, a 45% design review of the Spent Nuclear Fuel package and transport system was conducted, with the 50% design review meeting planned for the week of August 27<sup>th</sup>. The uranium crystal stored in the Shielded Materials Facility has been shipped to Oak Ridge National Laboratory.

**The 327 Building Deactivation Project** — Through effective deployment of minimum safety (min-safe) staff, two legacy waste drums were repackaged, and seven buckets of I Cell waste were transferred to A Cell for compaction and load-out into a shielded drum. Additionally, packaging methods and shipping containers for curium material were identified; and, the south backflow preventer was installed.

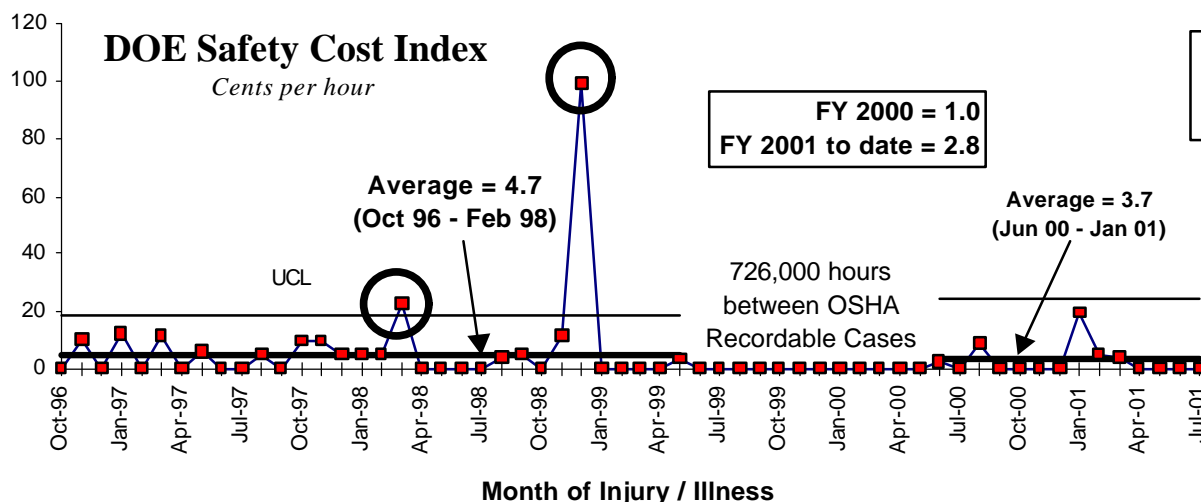
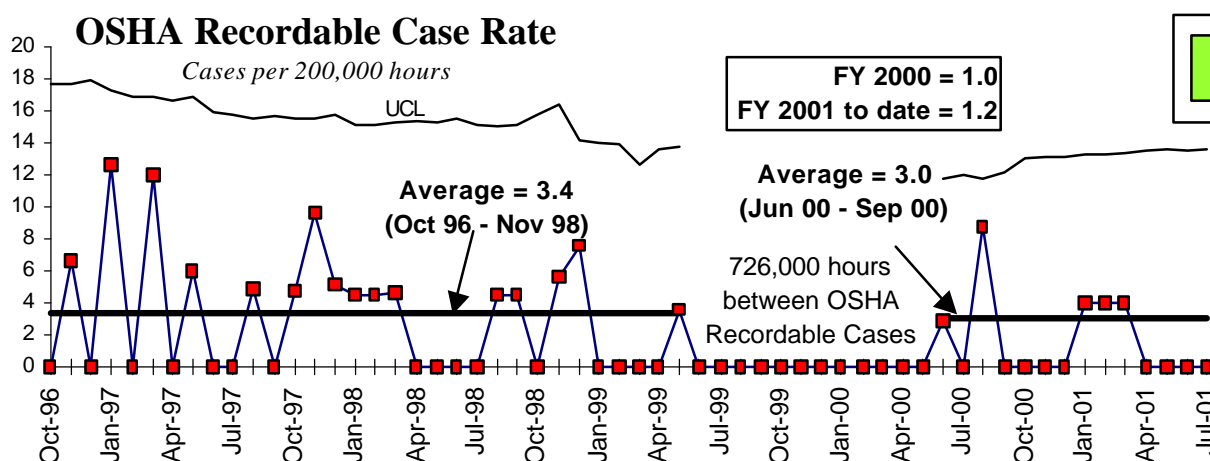
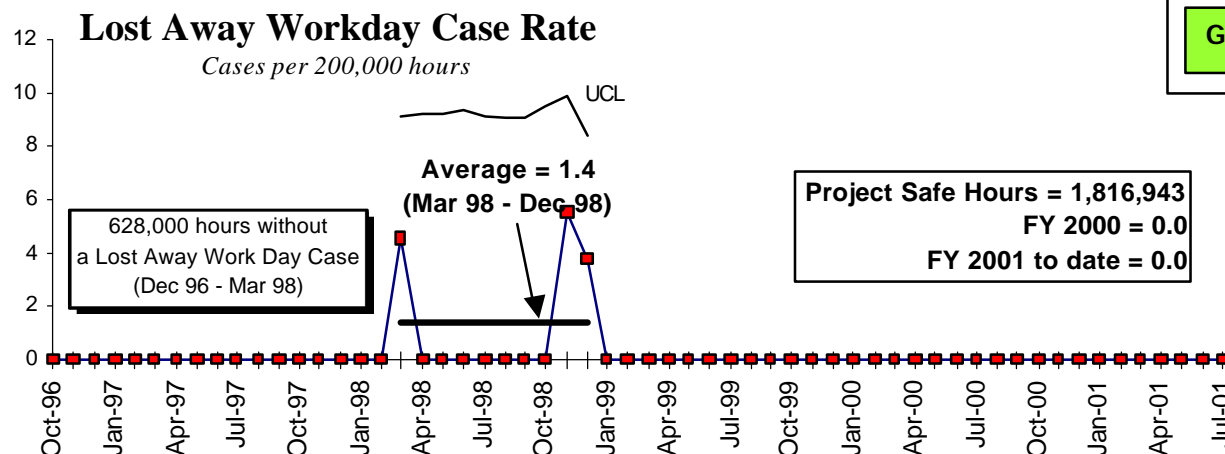
**The 300 Area Treated Effluent Disposal Facility (TEDF)/340 Facility** — During the month of July, the TEDF Facility treated 5.64 million gallons of wastewater. In addition, the disposal of spent resin from the ion exchange resin replacement was completed; and administrative requirements supporting the recycle of used 310 TEDF clarifier rakes as scrap metal were completed.

**Accelerated Deactivation Project** — The Project completed initial entry into the 224-T facility F Cell and an additional entry into E Cell for video footage and visual roof inspection for the purpose of facility characterization. The Uranium Disposition Project shipped two drums of Uranium Dioxide (UO<sub>2</sub>) and three shipping containers to the Fast Flux Test Facility (FFTF). The 303-K Building Project received approval on the 303-K Notice of Construction from the Environmental Protection Agency (EPA), and authorization was provided to Bechtel Hanford, Inc. (BHI) to proceed on 303-K Building demolition. In addition, the pre-existing condition report for Pacific Northwest National Laboratory (PNNL) buildings to be transferred to Fluor Hanford (FH) was completed.

**Equipment Disposition Project** — The Project surveyed and released two pieces of heavy equipment. The equipment (welder trailers) will be turned over to FH investment recovery for beneficial re-use. These are two of the five pieces of heavy equipment designated for disposition in FHI-M-3 superstretch. Additionally, waste characterization is being performed in support of the planned October shipment of the second and third of four tall well cars from Hanford to Memphis, TN.

## SAFETY

The River Corridor Project (RCP) has achieved more than 1.8 million safe work hours since its last lost away workday case. The OSHA Recordable Case Rate is 1.2, which is above the company goal of 0.9. The overall rating for RCP is green.



## ISMS STATUS

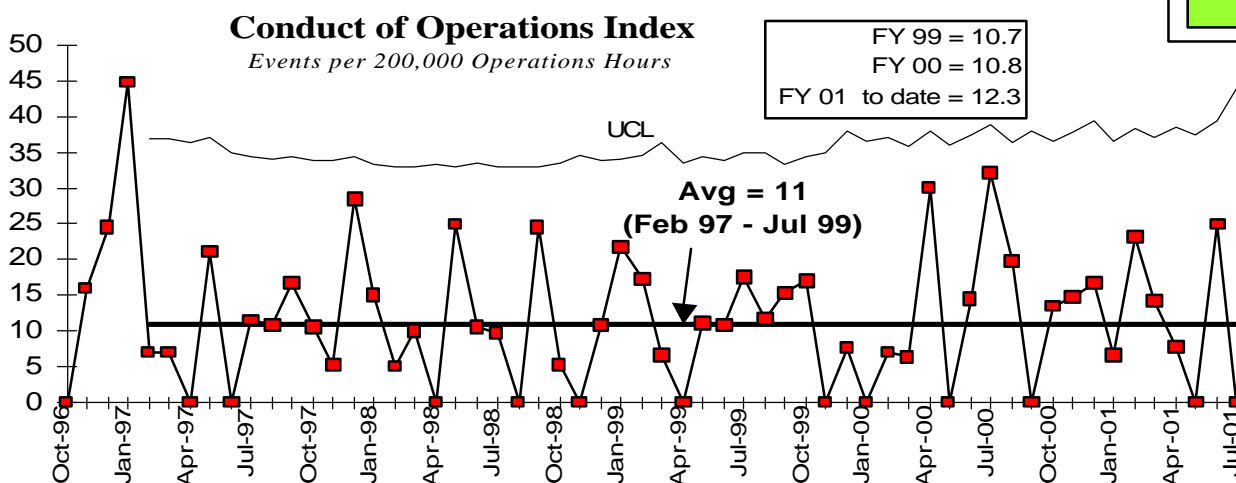
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The River Corridor Project (RCP) ISMS "Sustain and Maintain" process is in place. RCP is supporting the update of the FH annual ISMS training module and development of an ISMS/VPP Communications Plan through the ISMS Center of Expertise.

The RCP Voluntary Protection Program (VPP) application was received by the Department of Energy Headquarters (DOE-HQ). A team was assembled to conduct a detailed review of the application document and then to conduct the on-site review, tentatively scheduled for early October.

## CONDUCT OF OPERATIONS

Green



## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### Breakthroughs

- Technical Review of 327 Hot Cell Removal** — Technology Management, supported by RCP, completed a review of the feasibility of intact hot cell removal from the 327 Facility. The review team found the concept of intact removal to be feasible, and potentially had significant As Low As Reasonably Achievable (ALARA), cost, and schedule benefits. FH prepared and issued the *327 Building Stabilization Science and Technology Plan*, to RL via letter on July 3, 2001. According to the report, the review team has high confidence that intact removal of the 327 Building hot cells is technically viable and provides a more desirable end state than the existing baseline. Analysis of implementation risks and estimated costs show that the risks of intact cell removal are no greater than the existing baseline and have the benefit of reducing the baseline cost by \$2M to \$4M. The plan identifies the schedule for identifying technologies to support intact hot cell removal.
- Permit By Rule Treatment at 300 Area TEDF** — FH is investigating the potential to treat limited categories of liquid non-radioactive hazardous wastes using the existing capabilities of the 300 Area TEDF by applying a permit exclusion available within the waste regulations. Treatment of hazardous wastes at TEDF could provide a low-cost option for disposal of some wastes currently sent off-site. The regulatory analysis is complete, and

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for the next two months the benefits and site needs for waste treatment will be compared against the costs and risks of implementing the treatment. A decision on whether to proceed will be made during the first quarter of FY 2002.

## Opportunities for Improvement

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- **Conduct of Operations Improvement Initiative** - RCP has initiated a Conduct of Operations Improvement Plan to improve organizational performance, and to create a change regarding effective implementation of Conduct of Operations principles. The initiative will extend to all RCP facilities and include operations, maintenance, engineering, and radiological control. The improvement initiative will extend over an eight-month period with completion scheduled for March 2002.

## UPCOMING ACTIVITIES

**Uranium Disposition** — The miscellaneous uranium scrap materials, approximately five metric tons, will be transferred to the Low-Level Burial Ground by September 30, 2001. In addition, the final disposition of thorium materials located within the 303-K Facility will be completed by September 30, 2001.

**324 Building** — Complete D Cell and begin clean-out of pipetrench to include the placement of the robot by September 30, 2001.

**327 Authorization Basis (AB)** — Implementation of the technical update of the 327 Authorization Basis (originally due in May 2001) was slipped to the end of Fiscal Year (FY) 2001, due to resource limitations created by the new requirements of the 10CFR830 Nuclear Safety Rule.

**300 Area Skyline Initiative** — Demolish 303-K and complete disposition of the water towers by September 30, 2001.

## Milestone Achievement

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MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2001
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	0	0	1	0	0	0	0	1
DNFSB	0	0	0	0	0	0	0	0
DOE-HQ	0	0	0	0	0	0	0	0
RL	1	2	0	0	0	1	0	4
<b>Total Project</b>	1	2	1	0	0	1	0	5

Only TPA/EA milestones and all FY 2001 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY 2001 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY 2002 TPA/EA milestones.

Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
M-89-02	Complete Removal of 324 Building Radiochemical Engineering Cells (REC) B-Cell Mixed Waste (MW) and Equipment.	M-89-02 is complete.
DNFSB Commitments		
	Nothing to report at this time.	

## MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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Overdue – 0

FY 2002 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
MX-92-06-T01	"Complete Disposition for all Site Unirradiated Uranium"	Due 12/31/01 — On schedule.
DNFSB Commitments		
	Nothing to report at this time.	

## PERFORMANCE OBJECTIVES

Outcomes	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	<b>FHI-M8 – 300 Area Cleanup</b>	
	Measure 1: Accelerate 300 Area Cleanup	
	Expectation 1: Deactivate 324/327 Buildings	
	Base: Complete 26.5% remaining 324/327-baseline work by June 30, 2002.	Of the remaining life-cycle work scope, 11.5 percent was completed during the period of October 2000 through July 2001.
	Base: Complete B Cell cleanout and shipment of B Cell waste to 200 Area Burial Grounds.	The cleanout of B Cell and the shipment of B Cell waste to the 200 Area Burial Grounds were completed 14 days ahead of the revised date of July 31, 2001.
	Stretch: Complete additional 2.5% remaining 324/327-baseline work.	No additional work scope has been performed to date.

Expectation 2: Disposition surplus facilities

Base: Disposition 3902A, 3802B & 303-K by September 30, 2001.

Stretch: Disposition 377 Bldg. by June 30, 2002.

Expectation 3: Disposition uranium billets, uranium dioxide, scrap materials in 200/300 Areas, and 303-K thorium-232 by September 30, 2001.

Measure 2: Support RCP Contract Transition

Expectation 1:

Stretch: Support RCP contract transition by July 1, 2002.

Completed 3902A and 3902B water tower dismantlement with size reduction now in progress. The 303-K demolition schedule has been revised to incorporate the budget change request for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to Resource Conservation and Recovery Act (RCRA) waste disposition (FSP-01-050). The Notice of Construction (NOC) has been approved by the Washington State Department of Health (WDOH) and the EPA. BHI has provided a schedule and estimate that completes 303-K demolition by September 20, 2001. Preparation of engineering documents by BHI to support demolition is in progress. The engineering evaluation/cost analysis (EE/CA) #1, which includes the 377 Building demolition scope, was completed June 13, 2001, and submitted to the Department of Energy – Richland (RL). However, a decision was made by RL not to proceed with the EE/CA process at this time. The work scope will now need to be performed under RCRA vs. CERCLA disposition regulations.

The miscellaneous uranium scrap materials, approximately five metric tons, will be transferred to the Low-Level Burial Ground by September 30, 2001. In addition, the final disposition of thorium materials located within the 303-K Facility will be completed by September 30, 2001.

A draft transition plan has been prepared.

Transition Central Plateau  
to support long-term  
waste management

#### **FHI-M3 – 200 Area Facility Disposition**

Measure 1: Disposition Surplus Buildings and Rolling Stock

Expectation 1:

Base: Decontaminate & Decommission (D&D) 233-S & 233-SA Facilities by September 30, 2004.

Stretch: D&D 233-S & 233-SA by June 30, 2004.

Expectation 2: Complete installation of new roofs on PUREX & B Plant by September 30, 2002.

Work will be initiated July 1, 2002.

Work will be initiated July 1, 2002.

Work will be initiated February 1, 2002.

Expectation 3:

Base: Disposition contaminated railcars by June 30, 2006.

Waste characterization is being performed in support of the planned October shipment of the second and third of four tall well cars from Hanford to Memphis, TN.  
 Nothing to report.

Stretch: Disposition contaminated railcars by August 31, 2005.

Super stretch: Disposition contaminated railcars and heavy equipment by September 30, 2003.

Two pieces of regulated heavy equipment have been surveyed and will be released for beneficial reuse.

## FY 2001 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

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		FYTD									
By PBS		BCWS	BCWP	ACWP	SV	%	CV	%	BAC	EAC	
PBS TP01 WBS 1.4.1	B-Plant	\$ 0	0	\$ 0	\$ 0	0%	\$ (0)	0%	\$ 0	\$ 0	
PBS TP04 WBS 1.4.4	300 Area/ Special Nuclear Materials	\$ 3,121	\$ 3,441	\$ 3,331	\$ 319	10%	\$ 110	3%	\$ 4,356	\$ 4,610	
PBS TP12 WBS 1.4.6	Transition Program Management	\$ 5,451	\$ 5,448	\$ 5,132	\$ (3)	0%	\$ 316	6%	\$ 6,747	\$ 6,151	
PBS TP10 WBS 1.4.8	Accelerated Deactivation	\$ 3,129	\$ 3,074	\$ 3,090	\$ (56)	-2%	\$ (16)	-1%	\$ 3,611	\$ 3,711	
PBS TP08 WBS 1.4.10	324/327 Facility Transition	\$ 28,274	\$ 25,610	\$ 24,689	\$ (2,665)	-9%	\$ 920	4%	\$ 35,153	\$ 33,504	
PBS TP14 WBS 1.4.11	Hanford Surplus Facility Program (300Area Revitalization)	\$ 727	\$ 782	\$ 682	\$ 56	8%	\$ 100	13%	\$ 1,345	\$ 1,238	
Total		\$ 40,703	\$ 38,354	\$ 36,924	\$ (2,349)	-6%	\$ 1,430	4%	\$ 51,211	\$ 49,214	

Notes: RL-Directed costs (steam and laundry) are included in the PEM BCWS. 310 TEDF/340 Facility performance data is reported under PBS WM05 (Waste Management).

Authorized baseline is per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).

## FY TO DATE SCHEDULE / COST PERFORMANCE

The unfavorable schedule variance of \$2.3M (6 percent) was due to a change in strategy for preparation in support of SNF removal, 324 B-Cell waste shipment delays and crane repairs. The favorable cost variance of \$1.4M (4 percent) is primarily due to lower than planned FY 2001 fee accruals and favorable variance distributions (FY 2000 unearned fee reversals).

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

## Schedule Variance Analysis: (-\$2.3M)

### 300 Area/Special Nuclear Materials — 1.4.4/TP04

**Description and Cause:** The favorable schedule variance (+\$319K) was due to the contaminated fuel work scope completed ahead of schedule.

**Impact:** No impact.

**Corrective Action:** No corrective action required.

### 324/327 Facility Transition — 1.4.10/TP08

**Description and Cause:** The unfavorable schedule variance (-\$2,665K) was due to several factors; the primary contributor is the Spent Fuel Removal preparation (-\$1,724K). The baseline does not reflect current single contractor methodology developed in the vendor forum, making it difficult to report progress against the current baseline. Other contributors include the completion of shipping B Cell waste to the central plateau, the delay in starting the D Cell work that required an approved NOC prior to start, delays with Pipe Trench/Robotics, Engineering Studies, and crane repairs due to other priority work (-\$641K). **Note: Implementation of approved BCRs FSP-2001-059 (Delete Mani Decon Station) and FSP-2001-066 (New Approach for 324 Bldg Spent Nuclear Fuel) occurred in late July, reducing the schedule variance to -\$475K. This will be reflected in the August reporting period.**

**Impact:** Based on current data, there is no impact.

**Corrective Action:** Spent Fuel removal project work scope was updated to reflect a single contract methodology and implementation was completed by July 31, 2001. Completion of D Cell work scope is expected by September 29, 2001.

All other schedule variances are within threshold.

## Cost Variance Analysis: (+\$1.4M)

### Hanford Surplus Facility Program — 1.4.11/TP14

**Description and Cause:** The favorable cost variance (\$100K) was due to labor resources diverted to other high priority work, and a favorable variance distributions received in May and June.

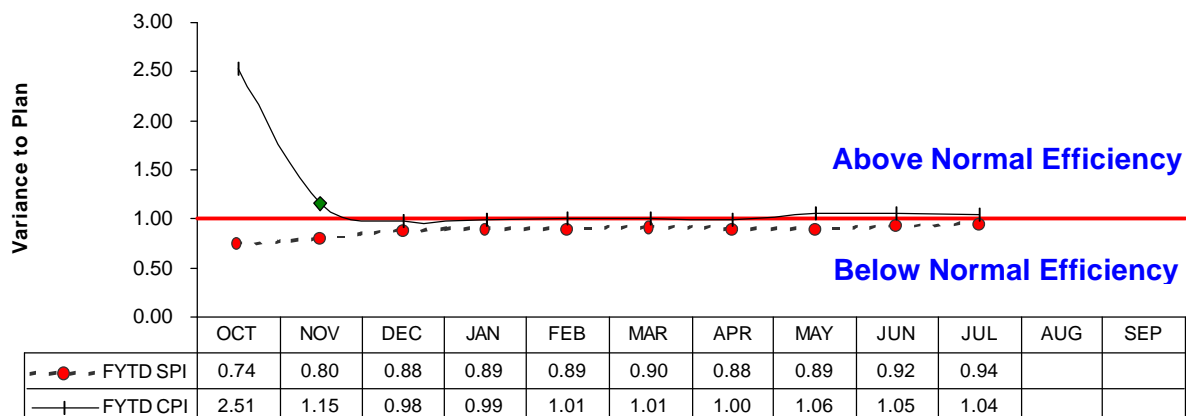
**Impact:** No Impact.

**Corrective Action:** No corrective action required.

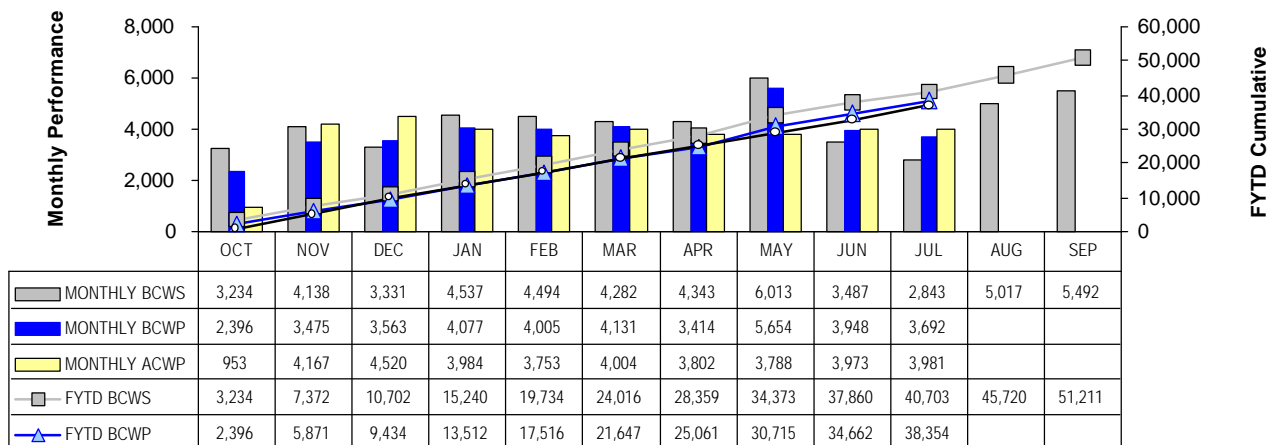
All other cost variances are within established thresholds.

## SCHEDULE / COST PERFORMANCE (MONTHLY AND FYTD)

Cost/Schedule Performance Indices (FYTD)



Performance Analysis  
FYTD and Monthly (\$000s)



## FUNDS MANAGEMENT FUNDS VS SPENDING FORECAST (\$000) FY 2001 TO DATE

	Funds	FYSF	Variance
<b>1.4 River Corridor</b>			
TP01, TP04, TP10, TP12, TP14, WM05			
Project Completion - Operating	\$ 49,228	\$ 46,616	\$ 2,612
Post 2006 - Operating	\$ 5,637	\$ 5,254	383
<b>Total</b>	<b>\$ 54,865</b>	<b>\$ 51,870</b>	<b>\$ 2,995</b>

*[Status through July 2001]*

Note: Does not include RL Managed data or post-2006 TP10 (\$649).

### Carryover Work Scope Projection

1.4 River Corridor	
TP08 – Crane maintenance/repairs, Engineering Studies	\$ 879
TP10 – 224T Cell Entries, 242B/BL & 231Z roof repairs	\$ 130
TP14 – Skyline Initiative/EECA-DQO	<u>\$ 300</u>
	\$1,309
<u>Emerging Requirement FY 2002</u>	
TP08 – 324 Spent Nuclear Fuel preparation activities	\$ 575

## ISSUES

### Technical Issues

**Issue:** Characterization activities at 224-T and 231-Z are impeded by the suspension of the non-destructive assay (NDA) program at the Plutonium Finishing Plant (PFP). The PFP program has been suspended due to problems associated with specific plutonium value calculations resulting from NDA measurements.

**Impact:** Delays characterization activities for both 231-Z and 224-T. These delays impact Master Documented Safety Analysis development, Fire Hazards Analysis, and Emergency Planning Hazard Analysis. These activities tie into the Safety Analysis Report compliance issues per the 830 Rule. In addition, there is a potential cost impact if an outside organization is used.

**Corrective Action:** RCP is currently waiting for release of available NDA program by either PFP or PNNL. Release is expected to be dependent on some level of implementation of the recommended corrective actions as published in the recent study titled "Recommendations for Fluor Hanford Non-Destructive Assay Program Management" (draft – August 13, 2001).

**Issue:** Uranium contamination was found on the 3902A and 3902B water towers.

**Impact:** There may be adverse cost and schedule impacts.

**Corrective Action:** Bury rather than recycle materials. Size reduction activities are under way.

## REGULATORY ISSUES

**Issue:** Soil contamination in the vicinity of the 303-K water isolation valve exceeds the NOC permit.

**Impact:** 303-K demolition may have to proceed around the water line – could have a cost impact.

**Corrective Action:** Proceed along two parallel paths:

- 1) Modify the 303-K demolition NOC to allow excavation of the affected soil. Modification of the NOC has been transmitted to RL for subsequent transmittal to the Department of Ecology.
- 2) Advise the demolition contractor of the potential requirement to avoid the water pipe while demolishing the building. The BHI demolition plan leaves the water line in place.

## EXTERNAL AND DOE ISSUES

None to report.

## DOE Requests

None to report.

## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY01 COST IMPACT (\$1,000)	SCH	TECH	DATE To FH CCB	FH CCB APR'VD	RL APR'VD	CURRENT STATUS
FSP-2000-002	11/2/99	Mark-42 Project Completion	\$304		X	04/05/00			Additional funding requested
FSP-2001-001	10/9/00	Baseline Adjustment to TP08	(\$496)		X				Draft Prepared
FSP-2001-056	5/24/01	Transfer of PNNL facilities to Fluor Hanford	\$526	X	X				On hold
FSP-2001-057	5/3/01	Engineering Study - Disposition of Remaining 300 area Fuel	\$70		X	6/20/01	6/20/01	7/26/01	Implemented 7/31/01
FSP-2001-058 Rev. 1	6/1/01	Revised Milestones for RL-TP04	\$0		X	8/6/01	8/7/01		Disapproved - Revision pending approval at RL
FSP-2001-059	6/7/01	Delete Mani Decon Station; Add SWBD LT Storage, 3-82B SEP/SARP	(\$229)	X		7/3/01	7/16/01		FH CCB Approved 7/16/01. Waiting for confirmation letter before implementation
FSP-2001-065	7/2/01	Revised Uranium Disposition Completion Dates	\$0	X		7/24/01	N/A	N/A	Waiting approval by FH CCB
FSP-2001-066	7/10/01	New Approach for 324 Building Spent Nuclear Fuel	\$77	X	X	7/16/01	7/30/01	N/A	Implemented 7/31/01

## KEY INTEGRATION ACTIVITIES

- **Potential Technology Funding for 327 Building Deactivation** - The current FY 2002 planning budget for EM50's Transuranic (TRU) and Mixed Waste Focus Area (TMFA) as managed from Idaho National Engineering and Environmental Laboratory, now targets \$790K for technology tasks focused on waste equipment size reduction at Hanford. In top consideration for a portion of this funding are opportunities at the 327 Building (e.g., detachment of H Cell using diamond wire cutting; removal and size reduction of an IX-column presently stored in the 327 wet basin; and removal and size reduction of heating, ventilation, and air conditioning ducting). If funded, this project would be a collaborative effort for FH, the TMFA, and PNNL/EM50's Robotics Crosscutting Group. As of August 22, 2001, no decision has been made.

- **West Valley Hot Cells Proposal Resubmitted to EM50** - Based on a request from EM50, the Large Scale Demonstration and Deployment Project proposal for West Valley hot cell deactivation was rewritten and resubmitted May 2, 2001, for funding consideration. This proposal was initially submitted to EM50 in September 2000, but was not selected for the first round of awards. If funded in the next round of awards RCP will participate on the Integrated Contractor Team (ICT) for influencing hot cell technologies to be demonstrated at West Valley, and potentially transferred to RCP's 324 and 327 Facilities. As of August 22, 2001, no decision has been made.